Proceedings

Tenth International Conference on

DATA ENGINEERING

February 14–18, 1994
Houston, Texas

Sponsored by
IEEE Computer Society Technical Commitee on Data Engineering

IEEE Computer Society Press

The Institute of Electrical and Electronics Engineers, Inc.

Proceedings

THE 10TH INTERNATIONAL CONFERENCE ON DATA ENGINEERING

Dedication

The conference organizers would like to dedicate these proceedings to C.V. Ramamoorthy in recognition of his efforts in guiding the International Conference on Data Engineering continuously for the last 10 years.

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Message from the General Chairs

Welcome to the Tenth International Conference on Data Engineering. This year we have arrived at a milestone that attests to the vision of the founders of this special meeting. To start planning over ten years ago a major conference devoted to an area overlapping the interests of academicians and practitioners is a feat that could only be accomplished by visionaries such as those listed on our steering committee. We pay special tribute to C.V. Ramamoorthy for guiding this endeavor continuously through the last 10 years.

As usual the conference will last for five days. The first two are devoted to tutorials, the last three are devoted to technical presentations, panels and industrial sessions. This year the conference also features a full day tutorial on the Sunday before the official start of the conference. This tutorial is held in conjunction with the RIDE workshop series.

We are fortunate to have among us two distinguished computer scientists. Alfred Aho will give the keynote address on the opening day of the conference. Gio Wiederhold will give the keynote address of the second day. Gio's relationship to ICDE goes back to the inception of this conference. He was the program chair of the second ICDE held in Los Angeles, California.

The technical program of the conference was selected by a distinguished program committee. The committee, led by 10 vice chairs, all worked together to insure a first rate program. The credit for selecting, maintaining and conducting the program committee business was all left in the able hands of our esteemed friend and colleague, Marek Rusinkiewicz. Marek has diligently worked on the selection of these technical papers. A million thanks for a job well done.

Special thanks to Omran Bukhres and Peter Muth for a first rate tutorial program. Not unexpectedly, Witold Litwin was succesful in selecting three excellent panels. Mike Stonebraker is responsible for selecting the best paper. Local arrangements were handled by J.F. Paris, C. Eick and A. Cheng. European coordination was done by our good friends Eva Kuehn and Gunter Schlageter. Far east coordination was done by Yutaka Matsushita and Mike Papazoglou. Finally, I would like to single out with special thanks Ernst Leiss, our treasurer, and Sumi Helal, for taking care of all the publicity. Sumi has shown tremendous dedication to the conference.

We hope that you join our celebration of the tenth anniversary of the conference in the usual Texan hospitality. The local arrangements folks have done a great job in selecting social events that will get even those with two left feet on the dance floor. We are planning a little birthday party for ICDE during the banquet which will be hosted by the steering committee. Please come join us in Houston for a week of intellectual pursuit, fun and renewals of friendships.

Erich Neuhold and Ahmed Elmagarmid
General Co-Chairs

Message from the Program Chair

These proceedings contain papers presented at the Tenth International Conference on Data Engineering. This year we received 270 submissions from 31 countries. After a thorough review the program committee decided to accept 50 papers. In addition to research paper sessions, the technical program of the conference includes invited industrial presentations, panel discussions, and keynote addresses by Al Aho and Gio Wiederhold.

It is a pleasant duty to express my sincere thanks to all who helped to create an interesting technical program, and especially:

- Authors of all papers submitted to ICDE-10;
- vice-chairs of the program committee, Elisa Bertino, Ramez Elmasri, Tomasz Imielinski, Masaru Kitsuregawa, Paul Larson, Dennis McLeod, C. Mohan, Hans Schek, and Richard Snodgrass for their time and effort in preparing the program of the conference;
- all members of the program committee, as well as 202 additional reviewers of the papers;
- Amit Sheth, who coordinated the Technology and Application Track, Daniel Barbara, who put together the Industrial Program, and Witold Litwin, who was responsible for the panel discussions;
- Ahmed Elmagarmid and Erich Neuhold, the general co-chairs of the conference who allowed us to concentrate on the technical program by taking care of all remaining problems; and
- members of the steering committee for their laconic but sage advice.

My special thanks go to Nancy Tran, George Karabatis, Andrzej Cichocki and Paolo Missier at the University of Houston, without whom it would have been impossible to complete the program committee work in time.

We hope that the conference will be stimulating and enjoyable to all who attend it, and keeping with the tradition of previous years, the papers in the proceedings will be both interesting and relevant.

Welcome y'all to Texas!

Marek Rusinkiewicz
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